Claims 1-10 have been rejected in the Office Action under 35 U.S.C. § 112, second paragraph, as being indefinite. In particular, the Examiner states in the Office Action "[t]he limitation 'magnet holder being–compression molded fiber and epoxy' cited in claim 1, lines 9-11, it is not clear that the group consisting of 'plastic, reinforced termoplastic, fiber and epoxy' or 'reinforced plastic, fiber and epoxy' clarification is required." Office Action at pg. 2, ll. 12-14.

Applicants respectfully note that lines 7-9 of claim 1 (line numbers 9-11 on pg. 10 of the as-filed application) recite: "the magnet holder being made of a material selected from the group consisting of conventional plastic, reinforced thermoplastic and compression molded fiber and epoxy." Applicants respectfully submit that this language is not indefinite.

Applicants have amended the above-noted language of claim 1 to recite: "the magnet holder being made of a material selected from the group consisting of (i) conventional plastic, (ii) reinforced thermoplastic and (iii) compression molded fiber and epoxy." This amendment is made the interest of moving the application toward issuance. The amendment does not affect the scope of the claims in any way, and is not being made for the purpose of overcoming the § 112, paragraph 2 rejections.

Applicants respectfully request that the rejection of claim 1 under 35 U.S.C. § 112, second paragraph, (and claims 2-10, which depend therefrom) be withdrawn based on the above remarks.

Claims 1-8 and 10 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,175,461 ("Zigler"). Claim 9 has been rejected under 35 U.S.C. § 103(a) as

being obvious over Zigler in view of U.S. Patent No. 5,124,605 ("Bitterly"). Applicants respectfully submit that claims 1-10 patentably define over the cited art for the following reasons.

Claim 1 of the present application has been amended to recite a magnet holder that encapsulates a plurality of magnets. This feature permits the magnets to be positioned on an inner circumferential surface of a composite rotor, as shown in Figure 2.

Zigler discloses a permanent magnet rotor (10) comprising a core (12) and a plurality of magnetic elements (22) that engage an outer surface (26) of the core (12). Zigler spec. at col. 3, ll. 55-58 and col. 5, ll. 6-8. The rotor (10) also comprises an outer shell 16 that encloses the magnetic elements (22). *Id.* at col. 4, ll. 26-28.

An adhesive such as epoxy is applied to an outer surface (26) of the core (12) prior to assembling the outer shell (16) over the magnetic elements (22). The adhesive fills the radius spaces or gaps between radial surfaces (50), (52) of the magnetic elements (22). *Id.* at col. 5, ll. 52-68. Hence, the adhesive does not encapsulate the magnetic elements (22). Rather, the magnetic elements are sandwiched between the core (12) and the outer shell (16); the magnetic elements are prevented from rotating in relation to the core by a layer of the adhesive between the core and the magnetic elements, and by adhesive located between adjacent magnetic elements. Hence, Applicants respectfully submit that Zigler neither teaches nor suggests a magnet holder the encapsulates a plurality of magnets. Withdrawal of the rejection of claim 1 under 35 U.S.C. § 102(b) (and claims 2-8 and 10, which depend therefrom) is therefore respectfully requested. Withdrawal of the rejection of claim 9 (which depends from claim 1)

under 35 U.S.C. § 103(a) is also respectfully requested.

Claims 11-26 have been rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 4,769,624 ("Meritt") in view of U.S. Patent No. 5,353,491 ("Gentry"). Applicants respectfully submit that claims 11-26 patentably define over the cited art for the following reasons.

Claim 11 of the present application recites a rotor having a first bore, a plurality of elongate magnets located within the first bore, and a magnet holder for securing the magnets to the rotor. The magnet holder holds the magnets in place on the rotor, and thereby prevents the magnets from rotating in relation to the magnet holder, i.e., the magnet holder causes the magnets to rotate along with the rotor. *See, e.g.*, pg. 4, l. 21 and Fig. 2 of the as-filed application.

The Examiner states in the Office Action that Merrit does not disclose a specific rotor structure having a magnet holder as claimed in claim 11. Office Action at pg. 4, ll. 22, 23.

Gentry discloses a magnetic retainer (12) welded to a frame (10). The retainer (12) has circumferentially spaced pockets or recesses that are each shaped to receive a permanent magnet 24. Gentry spec. at col. 2, ll. 29, 30, 35, 36. The Gentry specification states:

> [t]he frame and magnet assembly of this invention is intended to be used as a field assembly for providing magentic flux to a direct voltage electric cranking motor. In such use, *the armature of the motor rotates within part 12 and the frame 10 is secured to end frames of the cranking motor*." Id. at col. 4, ll. 28-33. (emphasis added)

Hence, the frame (10) of Gentry is not a rotor. Rather, the frame 10 is a *static* component that houses a rotating component (the armature). Applicants therefore respectfully submit that neither Gentry nor Merritt teach or suggest a rotor having a first bore, a plurality of elongate magnets located within the first bore, and a magnet holder for securing the magnets to the rotor. Withdrawal of the rejection of claim 11 under 35 U.S.C. § 103(a) (and claims 12-24, which depend therefrom) is respectfully requested.

Claim 25 recites a method for assembling a rotor comprising inserting a generally sleeve-shaped magnet retainer into a central bore of a rotor, the retainer having a circular array of empty elongated cavities at one end; inserting an elongated magnet into each of the cavities; and leaving the retainer and the magnets in place within the bore as a permanent attachment to the rotor. Neither Gentry nor Merritt teach or suggest a rotor having a bore, a plurality of elongate magnets located within first bore, and a magnet holder for securing the magnets to the rotor, as explained above. Applicants therefore respectfully submit that claim 25 patentably defines over Gentry and Merritt. Withdrawal of the rejection of claim 25 under 35 U.S.C. § 103(a) (and claim 26, which depends therefrom) is respectfully requested.

CONCLUSION

Applicants believe that the foregoing comprises a full and complete response to the Office Action of record. Accordingly, favorable reconsideration and subsequent allowance of the pending claims are earnestly solicited.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "**Version with markings to show changes made.**"

Respectfully submitted,

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Date: December 17, 2001

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

Claim 1 has been amended as follows:

1. (Amended) A circular permanent magnet array comprising:

a plurality of elongate magnets each having a longitudinal axis, the magnets arranged around a common central axis of rotation with the longitudinal axes located parallel to and radially offset from the axis of rotation; and

a nonmagnetic magnet holder [for maintaining] encapsulating the magnets and being adapted to hold the magnets in a fixed position, the magnet holder being made of a material selected from the group consisting of (i) conventional plastic, (ii) reinforced thermoplastic and (iii) compression molded fiber and epoxy.